

**STL Los Angeles** 

1721 South Grand Avenue Santa Ana, CA 92705-4808

Tel: 714 258 8610 Fax: 714 258 0921 www.stl-inc.com

January 5, 2001

STL LOT NUMBER: **E0L280156** PO/CONTRACT: 05160-SEV002

Rus Purcell Kennedy/Jenks Consultants 2151 Michelson Drive Suite 100 Irvine, CA 92612

Dear Mr. Purcell,

This report contains the analytical results for the sample received under chain of custody by STL Los Angeles on December 28, 2000. This sample is associated with your Boeing C-6 project.

All applicable quality control procedures met method-specified acceptance criteria. Matrix related anomalies are footnoted within the report.

This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions, please feel free to call me at 714-258-8610.

Sincerely,

Diane Suzuki Project Manager

cc: Project File

SEVERN TRENT LABORATORIES

No. 203100
CHAIN OF CUSTODY RECORD

TIME	SIGNATURE: PRINTED NAME/COMPANY:	SIGNATURE: PRINTED NAME/COMPANY: TIMI	12/2/20 12/20 12/2
DATE	Secretaria de la constanta de		DATE DATE
1	AE PRINTED NAME/COMPANY.	PRINTED NAME/COMPANY:	TIME
DATE	3. RELINQUISHED BY: SIGNATURE:	2. HELINQUISHED BY: DAT SIGNATURE:	12-28-00
	☐ ROUTINE ☐ OTHER	☐ 72 HOURS	UND* ☐ SAME DAY ☐ 24 HOURS ☐ 48
	AIRBILL NO.:	SHIPMENT METHOD:	SAMPLER:
1			
	× ×	1335 501 6005	Build-2-11-9-122700-1 12-27
Ö		SAMPLE SAMPLE CONTAINER PRESERV.	SAMPLE DESCRIPTION SAMPLE DATE
		PO NO.:	FAX: 261-2134 FAX:
		BEE	PHONE: 949-261-1577 PHONE
5	NA.		
	1/5/		Isying (1926)2 ADDRESS.
	SUES / / / / /	Rop in	ADDRESS: 2151 Michelson Dr. Ste. 100 BILL TO:
	MINE SET SET SET SET SET SET SET SET SET SE		
\	RS /OD	PROJECT NAME/NUMBER:	15
$\backslash 1$		PROJECT INFORMATION	CUSTOMER INFORMATION

\* RUSH TURNAROUND MAY REQUIRE SURCHARGE

Phone: (714) 258-8610 / Fax: (714) 258-0921 SEVERN TRENT LABORATORIES

1721 South Crand Avenue
Santa Ar \ 92705

# SEVERN TRENT LABORATORIES, INC. STANDARD TERMS AND CONDITIONS

ACCEPTANCE. Severn Trent Laboratories, Inc. (hereafter referred to as "STL") offers and will accept orders for services (as defined herein) only under the following Standard Terms and Conditions (the "Terms"). These Terms shall not apply if STL and the Customer shall have executed a separate agreement in writing. If specific Terms are not incorporated in the separate agreement those Terms will apply to the Customer. No modifications to the Terms shall be valid and binding unless in writing and signed by an authorized representative of STL. Customer's order for services shall be subject to the Terms and the Terms shall be binding upon receipt of samples to STL. Either party may terminate this agreement at any time by giving written notice of such termination to the other party. Upon termination the customer is subject to payment for all services rendered and expenses incurred up to date in accordance with the applicable Price Schedule.

INSURANCE. STL maintains insurance coverage with minimum limits as follows: (a) Comprehensive General Liability- \$1,000,000 each occurrence \$2,000,000 annual aggregate; (b) Comprehensive Automotive Liability Bodily Injury and Property Damage- \$1,000,000 each occurrence. (c) Workman's Compensation- \$500,000 each occurrence and \$500,000 each employee; STL and Customer agree to furnish the other, upon request, certificates attesting to the existence of insurance coverage.

**INDEPENDENT CONTRACTOR.** STL's relationship with Customer under this agreement shall be that of an independent contractor. Nothing in this Agreement shall be construed to designate STL, or any of its employees or subcontractors, as employees, joint venturers or partners of Customer.

<u>SUBCONTRACTING.</u> STL shall have the right to subcontract any and all services, duties, and obligations hereunder, in whole or in part with the consent of the Customer in a timely response which shall not be unreasonably refused. Subcontractor shall be bound by the same Terms of performance as STL.

**BILLING.** All fees are charged or billed directly to the Customer. The billing of a third party will not be accepted without a statement, signed by the third party, which acknowledges and accepts payment responsibility.

**PAYMENT.** Payment in advance is required for all Customers except those whose credit has been established with STL. Customers with STL approved credit, terms are Net 30 days, after which time a 1-1/2% per month late charge is added to all unpaid balances. Failure of the Customer to pay according to Terms gives STL the right to withhold delivery of future data until all past due invoices have been settled. Customer shall pay all costs and expenses incident to the collection of past due amounts, including reasonable attorney's fees. No retainage of fees by the customer is allowed without the consent of STL.

MODIFICATIONS. If the sample received is of unknown character than in the original quote, or if due to the composition of the sample the original procedure specified is not practicable or likely to produce reliable results, Customer will be promptly notified. Modified procedures will be suggested and STL may quote new prices for such modifications. Upon agreement of such modification, the original quote shall be deemed amended and the samples in question shall be deemed to have been received.

TIME OF PERFORMANCE. STL will use its best efforts to comply with storage, processing and analytical time limits requested by the Customer. Unless specifically agreed to in writing between STL and Customer, the time performance of any testing or other services performed by STL under this agreement is not guaranteed and STL shall have no liability for failure to perform such services within the time requested. Quick turnaround times are available at a premium cost which will be defined in the quote, providing STL workload availability.

LIMITATION OF DAMAGES. STL is not an insurer of services rendered and the payments mentioned are based solely on the value of the services provided pursuant to this agreement. STL's liability to the Customer and the Customer's exclusive remedy for any cause of action alleged against STL, whether based in contract, tort, or otherwise, shall be limited solely to the amount paid by the Customer for the services performed. In no event shall STL be liable for incidental or consequential damages including, without limitation, business interruption, loss of use, or loss of profits incurred by the Customer, its subsidiaries, affiliates, successors or assigns, arising out of or related to this agreement or the performance of services hereunder.

**WARRANTY.** STL makes no warranty or representation, express or implied, or guarantee of results from the performance of services pursuant to this Agreement. Any information, recommendation, interpretation, or opinion by STL is

based upon inferences and assumptions which are subject to error, and with respect to which analysis may differ. Accordingly, STL does not assume any liability with respect to the use of, or for damages resulting from the use of, any information, data, test results, analysis, apparatus, method, or process disclosed by STL. STL makes no presentation or warranty of any kind, including but not limited to, the warranties of fitness for a particular purpose or merchantability, nor are any such warranties to be implied with respect to the data or service furnished. STL assumes no responsibility with respect to Customer's use thereof. LIMITATION ACTION. No action, regardless of form, arising out of or brought in connection with any services provided under this Agreement may be brought by the Customer more than one year after the performance of said services by STL. It is expressly agreed that STL shall have no liability to Customer unless that liability arises out of the willful misconduct or gross negligence of STL or its duly authorized employees.

CONFIDENTIALITY. Data and the sample materials provided by Customer or at Customer's request and the result obtained by STL shall be held in confidence (unless such information is generally available to the public or is in the public domain or Customer has failed to pay STL for all services rendered or is otherwise in breach of this Agreement) subject to any disclosure required by law or legal process. STL's reports and the data and information provided therein are for the exclusive use and benefit of Customer and Customer agrees there shall be no third party beneficiary of such reports, data, or information. Customer will not disclose to any third party any information concerning STL's technical information, software programs, or other formulations.

**SEVERABILITY.** The provisions of this Agreement shall be severable, and if any clause, sentence, paragraph, provision or other part hereof shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair or invalidate the remainder hereof, which remainder shall continue in full force and effect.

WAIVER. No waiver by either party of any breach, default or violation of any term, warranty, representation, agreement, covenant, condition or provision hereof shall constitute a waiver of any subsequent breach, default or violation of the same or any other term, warranty, representation, agreement, covenant, condition or provision hereof. All waivers must be in writing.

FORCE MAJEURE. Obligation of either party under this Agreement shall be suspended, and such party shall not be liable for damages or other remedies while such party is prevented from complying therewith, in whole or in part, due to contingencies beyond its reasonable control, including, but not limited to, strikes, riots, war, fire, act of God, injunction, compliance with any law, regulation or order, whether valid or invalid, of the United States of America or any other governmental body or any instrumentality, matrix interference or unknown highly contaminated samples that impact instrument operations thereof, whether now existing or hereafter created, inability to secure materials or obtain necessary permits, provided, however, the party so prevented from complying with its obligations hereunder shall promptly notify the other party thereof.

LITIGATION. All costs associated with compliance to any subpoena for documents, for testimony in court of law, or for any other purpose relating to work performed by STL, in connection with work performed for the Customer, shall be paid by the Customer. Such costs shall include, but are not limited to, hourly charges for persons involved in responding to subpoenas, travel and accommodations, mileage, attorney's preparation of testifier and advice of counsel in connection with response to subpoenas, and all other expenses deemed reasonable and associated with said litigation.

HAZARDOUS WASTE. Unused portions of samples found or suspected to be hazardous according to state or federal guidelines may be returned to the Customer upon completion of the analytical work. The cost of returning the sample may be invoiced to the Customer. The sample portions thereof remain the property of the Customer at all times. All radioactive or dioxin containing samples will be returned to the sampling site or to the Customer at the Customer's expense.

**RETENTION OF SAMPLES.** All routine samples are retained in our storage facilities for 30 days after report generation unless prior arrangements have been made. Samples may be held longer per Customers request for an additional fee. **RETENTION OF REPORTS.** STL shall retain copies of analytical reports for a period of 5 years after report date, after which such reports may be destroyed or returned to the Customer at Customers expense. If Customer requests additional copies of such analytical reports during the retention period, an additional charge will apply for the preparation and printing of such reports.

<u>COMPLIANCE WITH LAW.</u> In the performance of all services to be provided hereunder, STL and Customer agree to comply with all applicable Federal, State and local laws and ordinances and all lawful orders, rules and regulations of any constituted authority.

<u>APPLICABLE LAW.</u> The validity, performance and construction of this Agreement shall be governed by and construed in accordance with the laws of the State of Delaware.

DRAFT — REVISION 1/27/99

STL - LOS ANGELES	
PROJECT RÉCEIPT CHECKLIST	Date: 12/28/00
	Juli
Quantims Lot #: & FW Z80/56	Quote #:
Client Name: KANNEDY JANKS	Project: BOLING C-6
Received by: 11/	Date/Time Received: 13/38 08:50
Received by:	Date/fille Received: 13/39 08.50
UPS DES Other	DHL Ultra-Ex Rey B.
	***************************************
	Initial / Date
Controlle Cool States Till 1	midar / Date
Custody Seal Status: Intact Broken Nor	ne
Custody Seal #(s):  Sample Container(s): STL-LA Client N/A	No Seal #
Sample Container(s): USTL-LA KIClient UN/A	
I temperature(s) (COOLER/BLANK) in °C:	ICORRECTED TEMP
Thermometer Used: XIR (Infra-red) Digital (Pro	bbe)
Samples: Xintact Broken	UOther
Anomalies: \( \overline{\sqrt{No}}\) \( \overline{\sqrt{No}}\) \( \overline{\sqrt{Yes}}\) (See C	Clouseau)
Labeled by	
Labeling checked by	(FBP)
Turn Around Time: RUSH-24HR RUSH-48HR	]RUSH-72HR XINORMAL AV 12/28
Short-Hold Notification: Ph Wet Chem Metals	(Filter/Pres) Encore N/A
Outside Analysis(es) (Test/Lab/Date Sent Out):	
	,
********* LEAVE NO BLANK SPA	CES: USF N/A *******
Fraction /	.   PH
VOAh /*	
BASS Spare 1	N/A
17/45 1/2020	
h HCl na:Sodium Hydoxide znna:Zinc Acetate/Sodium Hydroxide s: H2SO4 n:HNO3	n/f.HNO3-Field filtered n/fl:HNO3-Lab filtered
CGI. Clear Glass Jar CGB: Clear Glass Bottle AGJ: Amber Glass Jar AGB: Amber Glass Bottle PB:	Poly Bottle E:Encore Sampler V:VOA
* Number of VOA's w/ Headspace present	
LOCCED BY/DATE: Am 12 fm //	
LOGGED BY/DATE: AB 12/28/00 RE	VIEWED BY/DATE: 12/28/07)

# **EXECUTIVE SUMMARY - Detection Highlights**

#### E0L280156

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Build_2_U_9_122700_1 12/27/00 13:35	001			
C10-C11	250	200	mg/kg	SW846 8015B
C12-C13	1200	200	mg/kg	SW846 8015B
C14-C15	1600	200	mg/kg	SW846 8015B
C16-C17	1600	200	mg/kg	SW846 8015B
C18-C19	1000	200	mg/kg	SW846 8015B
C20-C23	360	200	mg/kg	SW846 8015B
Total Carbon Chain Range	6100	200	mg/kg	SW846 8015B
Acetone	970 J,B	1200	ug/kg	SW846 8260B
Ethylbenzene	73 J	250	ug/kg	SW846 8260B
Xylenes (total)	570	250	ug/kg	SW846 8260B
p-Isopropyltoluene	360	250	ug/kg	SW846 8260B
n-Propylbenzene	150 J	250	ug/kg	SW846 8260B
1,3,5-Trimethylbenzene	370	250	ug/kg	SW846 8260B
1,2,4-Trimethylbenzene	1200	250	ug/kg	SW846 8260B
sec-Butylbenzene	170 J	250	ug/kg	SW846 8260B
n-Butylbenzene	530	250	ug/kg	SW846 8260B

## **METHODS SUMMARY**

#### E0L280156

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Extractable Petroleum Hydrocarbons	SW846 8015B	SANA AUTO-SHAKE
Volatile Organics by GC/MS	SW846 8260B	SW846 5030
Volatile Petroleum Hydrocarbons	SW846 8015B	SW846

#### References:

SW846

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

#### **SAMPLE SUMMARY**

#### E0L280156

WO # 5	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
DR20G	001	Build_2_U_9_122700_1	12/27/00	13:35
NOTE (S)	١ -			

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

#### Client Sample ID: Build\_2\_U\_9\_122700\_1

#### GC Semivolatiles

			Matrix:	
Date Sampled:	12/27/00 13:35	Date Received: 12/28/00 08:50	MS Run #:	0363143
Prep Date:		Analysis Date: 12/29/00		

Prep Batch #...: 0363285 Analysis Date..: 12/29/0

Analysis Date..: 12/29/0

Analysis Time..: 12:38

Dilution Factor: 20

Analyst ID....: 356074 Instrument ID..: G02

Method.....: SW846 8015B

		REPORTIN	IG	
PARAMETER	RESULT	LIMIT	UNITS	MDL
C8-C9	ND	200	mg/kg	100
C10-C11	250	200	mg/kg	100
C12-C13	1200	200	mg/kg	100
C14-C15	1600	200	mg/kg	100
C16-C17	1600	200	mg/kg	100
C18-C19	1000	200	mg/kg	100
C20-C23	360	200	mg/kg	100
C24-C27	ND	200	mg/kg	100
C28-C31	ND	200	mg/kg	100
C32-C35	ND	200	mg/kg	100
C36-C39	ND	200	mg/kg	100
C40+	ND	200	mg/kg	100
Total Carbon Chain Range	6100	200	mg/kg	100
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Benzo(a)pyrene	76	(60 - 13	0)	

#### Client Sample ID: Build\_2\_U\_9\_122700\_1

#### GC Volatiles

Lot-Sample #: E01	280156-001 <b>Work</b>	Order #:	DR20G1AD	Matrix		SOLID
Date Sampled: 12/	/27/00 13:35 <b>Date</b>	Received:	12/28/00 0	08:50 <b>MS</b> Run	#:	
Prep Date: 12/		ysis Date:				
Prep Batch #: 100	)3206 <b>Anal</b>	ysis Time:	15:47			
Dilution Factor: 1						
Analyst ID: 001	464 Inst	rument ID:	G16			
	Metho	od:	SW846 8015	5B		
			REPORTING			
PARAMETER	RESU	LT	LIMIT	UNITS	MDL	
C6-C8	ND G		10	mg/kg	6.0	***************************************
	PERCI	ENT	RECOVERY			
SURROGATE	RECO <sup>7</sup>	/ERY	LIMITS			
a,a,a-Trifluorotolue	ne (TFT) 92		(60 - 130)	<b>-</b>		
NOTE(S):						

 $<sup>\</sup>ensuremath{G}$  – Elevated reporting limit. The reporting limit is elevated due to matrix interference.

Due to high presence of unknown hydrocarbons, sample can't be analyzed t low level to prevent instrument damage.

#### Client Sample ID: Build 2 U 9 122700 1

#### GC/MS Volatiles

Lot-Sample #...: E0L280156-001 Work Order #...: DR20G1AA Matrix.....: SOLID Date Sampled...: 12/27/00 13:35 Date Received..: 12/28/00 08:50 MS Run #.....: 1002255

 Prep Date....: 12/29/00
 Analysis Date..: 12/29/00

 Prep Batch #...: 1002463
 Analysis Time..: 11:13

Dilution Factor: 1

Analyst ID....: 999998 Instrument ID..: MSD

Method....: SW846 8260B

		REPORTI	NG	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	500	ug/kg	170
Chloromethane	ND	500	ug/kg	200
Vinyl chloride	ND	500	ug/kg	150
Bromomethane	ND	500	ug/kg	250
Chloroethane	ND	500	ug/kg	250
Trichlorofluoromethane	ND	500	ug/kg	70
Acrolein	ND	5000	ug/kg	2000
1,1-Dichloroethene	ND	250	ug/kg	120
Iodomethane	ND	500	ug/kg	250
Acetone	970 J,B	1200	ug/kg	400
Carbon disulfide	ND	250	ug/kg	100
Methylene chloride	ND	250	ug/kg	50
trans-1,2-Dichloroethene	ND	250	ug/kg	120
Acrylonitrile	ND	2500	ug/kg	2000
Methyl tert-butyl ether	ND	250	ug/kg	100
1,1-Dichloroethane	ND	250	ug/kg	100
Vinyl acetate	ND	500	ug/kg	250
2,2-Dichloropropane	ND	250	ug/kg	60
cis-1,2-Dichloroethene	ND	250	ug/kg	100
2-Butanone	ND	1200	ug/kg	500
Bromochloromethane	ND	250	ug/kg	75
Chloroform	ND	250	ug/kg	70
Tetrahydrofuran	ND	1000	ug/kg	500
1,1,1-Trichloroethane	ND	250	ug/kg	70
1,1-Dichloropropene	ND	250	ug/kg	100
Carbon tetrachloride	ND	250	ug/kg	60
Benzene	ND	250	ug/kg	100
1,2-Dichloroethane	ND	250	ug/kg	70
Trichloroethene	ND	250	ug/kg	60
1,2-Dichloropropane	ND	250	ug/kg	100
Bromodichloromethane	ND	250	ug/kg	100
2-Chloroethyl vinyl ether	ND	500	ug/kg	250
cis-1,3-Dichloropropene	ND	250	ug/kg	100
4-Methyl-2-pentanone	ND	1200	ug/kg	400
Toluene	ND	250	ug/kg	60
trans-1,3-Dichloropropene	ND	250	ug/kg	70
1,1,2-Trichloroethane	ND	250	ug/kg	100
			10	

(Continued on next page)

## Client Sample ID: Build\_2\_U\_9\_122700\_1

#### GC/MS Volatiles

Lot-Sample #	.: E0L280156-001	Work Order #	#: DR20G1AA	Matrix:	SOLID
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		REPORTIN		
PARAMETER	RESULT	LIMIT	UNITS	MDL
Tetrachloroethene	ND	250	ug/kg	80
2-Hexanone	ND	1200	ug/kg	300
Dibromochloromethane	ND	250	ug/kg	100
1,2-Dibromoethane	ND	250	ug/kg	70
Chlorobenzene	ND	250	ug/kg	100
Ethylbenzene	73 J	250	ug/kg	70
Xylenes (total)	570	250	ug/kg	170
Styrene	ND	500	ug/kg	100
Bromoform	ND	250	ug/kg	100
Isopropylbenzene	ND	250	ug/kg	120
p-Isopropyltoluene	360	250	ug/kg	70
Bromobenzene	ND	250	ug/kg	70
1,1,1,2-Tetrachloroethane	ND	250	ug/kg	50
1,1,2,2-Tetrachloroethane	ND	250	ug/kg	100
1,2,3-Trichloropropane	ND	250	ug/kg	110
n-Propylbenzene	150 J	250	ug/kg	110
2-Chlorotoluene	ND	250	ug/kg	70
4-Chlorotoluene	ND	. 250	ug/kg	70
1,3,5-Trimethylbenzene	370	250	ug/kg	120
tert-Butylbenzene	ND	250	ug/kg	70
1,2,4-Trimethylbenzene	1200	250	ug/kg	70
sec-Butylbenzene	170 J	250	ug/kg	70
1,3-Dichlorobenzene	ND	250	ug/kg	70
l,4-Dichlorobenzene	ND	250	ug/kg	100
1,2-Dichlorobenzene	ND	250	ug/kg	100
n-Butylbenzene	530	250	ug/kg	70
1,2-Dibromo-3-chloro-	ND	500	ug/kg	150
propane			J. J	
1,2,4-Trichloro-	ND	250	ug/kg	70
benzene			3, 3	
Hexachlorobutadiene	ND	250	ug/kg	70
1,2,3-Trichlorobenzene	ND	250	ug/kg	70
			~3/3	. •
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Bromofluorobenzene	82	(60 - 14	0)	
l,2-Dichloroethane-d4	84	(60 - 14)		
Foluene-d8	86	(60 - 14)		

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

# QC DATA ASSOCIATION SUMMARY

#### E0L280156

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	SOLID	SW846 8015B		0363285	0363143
	SOLID	SW846 8015B		1003206	
	SOLID	SW846 8260B		1002463	1002255

#### GC Semivolatiles

Client Lot #...: E0L280156

Work Order #...: DR3FQ1AA

Matrix..... SOLID

MB Lot-Sample #: E0L280000-285

Prep Date....: 12/28/00

Analysis Time..: 16:07

Analysis Date..: 12/28/00

Dilution Factor: 1

Prep Batch #...: 0363285

Instrument ID..: G02

**Analyst ID....:** 356074

		REPORTI	NG	
PARAMETER	RESULT	LIMIT	UNITS	METHOD
C8-C9	ND	10	mg/kg	SW846 8015B
C10-C11	ND	10	mg/kg	SW846 8015B
C12-C13	ND	10	mg/kg	SW846 8015B
C14-C15	ND	10	mg/kg	SW846 8015B
C16-C17	ND	10	mg/kg	SW846 8015B
C18-C19	ND	10	mg/kg	SW846 8015B
C20-C23	ND	10	mg/kg	SW846 8015B
C24-C27	ND	10	mg/kg	SW846 8015B
C28-C31	ND	10	mg/kg	SW846 8015B
C32-C35	ND	10	mg/kg	SW846 8015B
C36-C39	ND	10	mg/kg	SW846 8015B
C40+	ND	10	mg/kg	SW846 8015B
Cotal Carbon Chain Range	ND	10	mg/kg	SW846 8015B
	PERCENT	RECOVERY	Ž.	
SURROGATE	RECOVERY	LIMITS		
Benzo(a)pyrene	109	(60 - 13	30)	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

#### GC/MS Volatiles

Client Lot #...: E0L280156

MB Lot-Sample #: E1A020000-463

Analysis Date..: 12/29/00

Dilution Factor: 1

Work Order #...: DR6L01AA

Matrix..... SOLID

Prep Date....: 12/29/00 Analysis Time..: 10:30

Prep Batch #...: 1002463 Instrument ID..: MSD

**Analyst ID....:** 999998

		REPORTI	REPORTING			
PARAMETER	RESULT	LIMIT	UNITS	METHOD		
Dichlorodifluoromethane	ND	500	ug/kg	SW846 8260B		
Chloromethane	ND	500	ug/kg	SW846 8260B		
Vinyl chloride	ND	500	ug/kg	SW846 8260B		
Bromomethane	ND	500	ug/kg	SW846 8260B		
Chloroethane	ND	500	ug/kg	SW846 8260B		
Trichlorofluoromethane	ND	500	ug/kg	SW846 8260B		
Acrolein	ND	5000	ug/kg	SW846 8260B		
1,1-Dichloroethene	ND	250	ug/kg	SW846 8260B		
Iodomethane	ND	500	ug/kg	SW846 8260B		
Acetone	860 J	1200	ug/kg	SW846 8260B		
Carbon disulfide	ND	250	ug/kg	SW846 8260B		
Methylene chloride	ND	250	ug/kg	SW846 8260B		
:rans-1,2-Dichloroethene	ND	250	ug/kg	SW846 8260B		
Acrylonitrile	ND	2500	ug/kg	SW846 8260B		
Methyl tert-butyl ether	ND	250	ug/kg	SW846 8260B		
1,1-Dichloroethane	ND	250	ug/kg	SW846 8260B		
Vinyl acetate	ND	500	ug/kg	SW846 8260B		
2,2-Dichloropropane	ND	250	ug/kg	SW846 8260B		
cis-1,2-Dichloroethene	ND	250	ug/kg	SW846 8260B		
2-Butanone	ND	1200	ug/kg	SW846 8260B		
Bromochloromethane	ND	250	ug/kg	SW846 8260B		
Chloroform	ND	250	ug/kg	SW846 8260B		
Tetrahydrofuran	ND	1000	ug/kg	SW846 8260B		
1,1,1-Trichloroethane	ND	250	ug/kg	SW846 8260B		
1,1-Dichloropropene	ND	250	ug/kg	SW846 8260B		
Carbon tetrachloride	ND	250	ug/kg	SW846 8260B		
Benzene	ND	250	ug/kg	SW846 8260B		
1,2-Dichloroethane	ND	250	ug/kg	SW846 8260B		
Trichloroethene	ND	250	ug/kg	SW846 8260B		
1,2-Dichloropropane	ND	250	ug/kg	SW846 8260B		
Bromodichloromethane	ND	250	ug/kg	SW846 8260B		
2-Chloroethyl vinyl ether	ND	500	ug/kg	SW846 8260B		
cis-1,3-Dichloropropene	ND	250	ug/kg	SW846 8260B		
4-Methyl-2-pentanone	ND	1200	ug/kg	SW846 8260B		
Toluene	ND	250	ug/kg	SW846 8260B		
trans-1,3-Dichloropropene	ND	250	ug/kg	SW846 8260B		
1,1,2-Trichloroethane	ND	250	ug/kg	SW846 8260B		
Tetrachloroethene	ND	250	ug/kg	SW846 8260B		
?-Hexanone	ND	1200	ug/kg	SW846 8260B		
Dibromochloromethane	ND	250	ug/kg	SW846 8260B		

(Continued on next page)

#### GC/MS Volatiles

		REPORTI	NG	
PARAMETER	RESULT	LIMIT	UNITS	METHOD
1,2-Dibromoethane	ND	250	ug/kg	SW846 8260B
Chlorobenzene	ND	250	ug/kg	SW846 8260B
Ethylbenzene	ND	250	ug/kg	SW846 8260B
Xylenes (total)	ND	250	ug/kg	SW846 8260B
Styrene	ND	500	ug/kg	SW846 8260B
Bromoform	ND	250	ug/kg	SW846 8260B
Isopropylbenzene	ND	250	ug/kg	SW846 8260B
p-Isopropyltoluene	ND	250	ug/kg	SW846 8260B
Bromobenzene	ND	250	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	250	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	250	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	250	ug/kg	SW846 8260B
n-Propylbenzene	ND	250	ug/kg	SW846 8260B
2-Chlorotoluene	ND	250	ug/kg	SW846 8260B
4-Chlorotoluene	ND	250	ug/kg	SW846 8260B
1,3,5-Trimethylbenzene	ND	250	ug/kg	SW846 8260B
tert-Butylbenzene	ND	250	ug/kg	SW846 8260B
.,2,4-Trimethylbenzene	ND	250	ug/kg	SW846 8260B
sec-Butylbenzene	ND	250	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
n-Butylbenzene	ND	250	ug/kg	SW846 8260B
1,2-Dibromo-3-chloro- propane	ND	500	ug/kg	SW846 8260B
1,2,4-Trichloro- benzene	ND	250	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	250	ug/kg	SW846 8260B
1,2,3-Trichlorobenzene	ND	250	ug/kg	SW846 8260B
	PERCENT	RECOVER	Y	
SURROGATE	RECOVERY	LIMITS		
Bromofluorobenzene	95	(60 - 14	10)	

(60 - 140)

(60 - 140)

NOTE(S):

Toluene-d8

Calculations are performed before rounding to avoid round-off errors in calculated results.

97

98

1,2-Dichloroethane-d4

J Estimated result. Result is less than RL.

#### GC Volatiles

Client Lot #...: E0L280156

Work Order #...: DR6681AA

Matrix..... SOLID

MB Lot-Sample #: E1A030000-206

Prep Date....: 12/29/00

Analysis Time..: 11:32

Analysis Date..: 12/29/00

Dilution Factor: 1

Prep Batch #...: 1003206

Instrument ID..: G16

**Analyst ID....:** 001464

REPORTING

PARAMETER

RESULT

LIMIT

UNITS METHOD

C6-C8

ND

10

mg/kg SV

SW846 8015B

SURROGATE

PERCENT RECOVERY RECOVERY

a,a,a-Trifluorotoluene

00

LIMITS (60 - 130)

/mmm)

NOTE(S):

(TFT)

Calculations are performed before rounding to avoid round-off errors in calculated results.

#### LABORATORY CONTROL SAMPLE DATA REPORT

#### GC Volatiles

Client Lot #: E0L280	156 <b>Wor</b> .	k Order	#: DR668	Blac-Lcs	Matrix.	SOLID
LCS Lot-Sample#: E1A030	000-206		DR668	31AD-LCSD		
Prep Date: 12/29/	00 <b>Ana</b>	lysis Da	te: 12/29	9/00		
Prep Batch #: 100320	6 Ana	lysis Ti	me: 10:35	5		
Dilution Factor: 1	Ins	trument	ID: G16			
Analyst ID: 001464						
	SPIKE	MEASURE	D	PERCENT		
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	RPD	METHOD
TPH (as Gasoline)	50.0	57.6	mg/kg	115		SW846 8015B
	50.0	55.4	mg/kg	111	3.8	SW846 8015B
			PERCENT	RECOVERY		

	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
a,a,a-Trifluorotoluene (TFT)	119	(60 - 130)		
(171)	123	(60 - 130)		

#### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

#### LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### GC Volatiles

Client Lot #: E0L280156 LCS Lot-Sample#: E1A030000-2 Prep Date: 12/29/00 Prep Batch #: 1003206 Dilution Factor: 1 Analyst ID: 001464	06 Analysis Da	ate: 12/29/ ime: 10:35	LAD-LCS		x: SOLID
PARAMETER TPH (as Gasoline)	PERCENT RECOVERY 115 111	RECOVERY <u>LIMITS</u> (80 - 140) (80 - 140)	***************************************	RPD LIMITS (0-40)	METHOD SW846 8015B SW846 8015B
SURROGATE  a,a,a-Trifluorotoluene  (TFT)		PERCENT RECOVERY 119	·		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

#### LABORATORY CONTROL SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #...: E0L280156 Work Order #...: DR3FQ1AC Matrix.....: S0LID

LCS Lot-Sample#: E0L280000-285

Prep Date....: 12/28/00 Analysis Date..: 12/28/00 Prep Batch #...: 0363285 Analysis Time..: 16:46

Dilution Factor: 1 Instrument ID..: G02

**Analyst ID....:** 356074

SPIKE MEASURED PERCENT

PARAMETER AMOUNT UNITS RECOVERY METHOD

TPH (as Diesel) 250 184 mg/kg 73 SW846 8015B

SURROGATE PERCENT RECOVERY

RECOVERY

LIMITS

77

(60 130)

Benzo(a) pyrene 77 (60 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

#### LABORATORY CONTROL SAMPLE DATA REPORT

#### GC/MS Volatiles

Client Lot #...: E0L280156 Work Order #...: DR6L01AC Matrix.....: SOLID

LCS Lot-Sample#: E1A020000-463

Prep Date....: 12/29/00
Prep Batch #...: 1002463
Dilution Factor: 1

Analysis Date..: 12/29/00
Analysis Time..: 09:28
Instrument ID..: MSD

Analyst ID....: 999998

	SPIKE	MEASURED		PERCENT	
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	METHOD
1,1-Dichloroethene	2500	2490	ug/kg	99	SW846 8260B
Benzene	2500	2360	ug/kg	95	SW846 8260B
Trichloroethene	2500	2410	ug/kg	96	SW846 8260B
Toluene	2500	2320	ug/kg	93	SW846 8260B
Chlorobenzene	2500	2340	ug/kg	94	SW846 8260B
		PERCENT	RECOVERY		

	* 11/01/1/1	LIMITS		
SURROGATE	RECOVERY			
Bromofluorobenzene	89	(60 - 140)		
1,2-Dichloroethane-d4	97	(60 - 140)		
Toluene-d8	94	(60 - 140)		

#### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

#### LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### GC Semivolatiles

Client Lot #...: E0L280156 Work Order #...: DR3FQ1AC Matrix.....: SOLID

LCS Lot-Sample#: E0L280000-285

Prep Date....: 12/28/00 Analysis Date..: 12/28/00 Prep Batch #...: 0363285 Analysis Time..: 16:46

Dilution Factor: 1 Instrument ID.:: G02

Analyst ID....: 356074

PERCENT RECOVERY

PARAMETER RECOVERY LIMITS METHOD

TPH (as Diesel) 73 (60 - 130) SW846 8015B

SURROGATEPERCENTRECOVERYBenzo(a) pyreneRECOVERYLIMITS77(60 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

#### LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### GC/MS Volatiles

Client Lot #: E0L280156 LCS Lot-Sample#: E1A020000-46 Prep Date: 12/29/00 Prep Batch #: 1002463 Dilution Factor: 1 Analyst ID: 999998	3 Analysis Da	#: DR6L01AC ate: 12/29/00 ime: 09:28 ID: MSD	
PARAMETER  1,1-Dichloroethene Benzene Trichloroethene Toluene Chlorobenzene	PERCENT RECOVERY 99 95 96 93	RECOVERY LIMITS (60 - 140) (60 - 130) (60 - 140) (60 - 130) (60 - 130)	SW846 8260B SW846 8260B
SURROGATE  Bromofluorobenzene  1,2-Dichloroethane-d4  Toluene-d8		PERCENT RECOVERY 89 97 94	RECOVERY <u>LIMITS</u> (60 - 140) (60 - 140) (60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

#### MATRIX SPIKE SAMPLE DATA REPORT

#### GC Semivolatiles

Client Lot #: EGMS Lot-Sample #: EGDate Sampled: 12 Prep Date: 12 Prep Batch #: 02 Dilution Factor: 20	0L280156-001 2/27/00 13:35 1 2/28/00 2 363285 2	Date Rece Analysis Analysis	eived: Date:	DR20G1AF- 12/28/00 12/29/00	MSD 08:50 <b>MS</b>	Run ‡	ŧ	
PARAMETER TPH (as Diesel)	SAMPLE <u>AMOUNT</u> <b>7500</b> <b>7500</b>	AMT AM 98	850 mg	NITS g/kg	PERCENT RECOVERY 937 a 661 a	***************************************	METHOD SW846 SW846	8015B
SURROGATE Benzo(a)pyrene				;	RECOVERY LIMITS (60 - 130	•		
NOTE(S):								

Calculations are performed before rounding to avoid round-off errors in calculated results.

a Spiked analyte recovery is outside stated control limits.

#### MATRIX SPIKE SAMPLE DATA REPORT

#### GC/MS Volatiles

Client Lot #: E0L28015 MS Lot-Sample #: E0L28015 Date Sampled: 12/27/00 Prep Date: 12/29/00 Prep Batch #: 1002463	6-001 13:35	Date R Analys	eceived. is Date.	DR20G1AG DR20G1AH : 12/28/00 : 12/29/00 : 12:52	-MSD 08:50 <b>M</b> S		: SOLID #: 1002255
Dilution Factor: 1				.: 999998	In	strum	ent ID: MSD
PARAMETER	AMOUNT	<u>AMT</u>	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	ND ND	2500 2500	2150 2230	ug/kg ug/kg	86 89	3.4	SW846 8260B SW846 8260B
Benzene	ND	2500	2130	ug/kg	85		SW846 8260B
Trichloroethene	ND ND ND	2500 2500 2500	2180 2240 2260	ug/kg ug/kg ug/kg	87 89 91	2.6 1.3	SW846 8260B SW846 8260B
Toluene	ND ND	2500 2500 2500	2140 2170	ug/kg ug/kg ug/kg	85 87		SW846 8260B SW846 8260B
Chlorobenzene	ND ND	2500 2500 2500	2170 2130 2200	ug/kg ug/kg	85 88		SW846 8260B SW846 8260B SW846 8260B
			PERCENT		RECOVERY		5W040 0200B
GURROGATE			RECOVER		LIMITS		
Bromofluorobenzene			80	<del></del>	(60 - 14	0)	
1,2-Dichloroethane-d4			76 89		(60 - 14 (60 - 14		
-,			89		(60 - 14)		
Toluene-d8			88		(60 - 14	•	
			89		(60 - 14	0)	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

NOTE(S):

#### MATRIX SPIKE SAMPLE EVALUATION REPORT

#### GC Semivolatiles

Client Lot #: EC	DL280156 Worl	k Order #:	DR20G1AE-MS	Matrix	: SOLID
MS Lot-Sample #: E0	DL280156-001		DR20G1AF-MSD		
Date Sampled: 12	2/27/00 13:35 <b>Date</b>	e Received:	12/28/00 08:	50 <b>MS Run #.</b>	: 0363143
Prep Date: 12	2/28/00 <b>Ana</b>	lysis Date:	12/29/00		
Prep Batch #: 03	363285 <b>Ana</b>	lysis Time:	13:17		
Dilution Factor: 20	) Anal	lyst ID:	356074	Instrument	<b>ID:</b> G02
	PERCENT	RECOVERY	RPD		
PARAMETER	RECOVERY	LIMITS	RPD LIM	ITS METHOI	
TPH (as Diesel)	937 a	(60 - 130)		SW846	8015B
	661 a	(60 - 130)	7.2 (0-	35) SW846	8015B
		PERCENT	REC	OVERY	
SURROGATE		RECOVERY	LIM	ITS	
Benzo(a)pyrene		95	(60	- 130)	
		90	(60	- 130)	
NOTE(S):					

Calculations are performed before rounding to avoid round-off errors in calculated results.

a Spiked analyte recovery is outside stated control limits.

#### MATRIX SPIKE SAMPLE EVALUATION REPORT

#### GC/MS Volatiles

MS Lot-Sample #: E0L280156-001 DR20G1AH-MSD	ix SOLID
Date Sampled: 12/27/00 13:35 Date Received: 12/28/00 08:50 MS Ru	<b>m</b> #: 1002255
Prep Date: 12/29/00 Analysis Date: 12/29/00	
Prep Batch #: 1002463 Analysis Time: 12:52	
Dilution Factor: 1 Analyst ID: 999998 Instr	rument ID: MSD
PERCENT RECOVERY RPD	
PARAMETER RECOVERY LIMITS RPD LIMITS M	1ETHOD
	SW846 8260B
89 (60 - 140) 3.4 (0-35) S	SW846 8260B
Benzene 85 (60 - 130) S	SW846 8260B
87 (60 - 130) 2.6 (0-35) S	SW846 8260B
Trichloroethene 89 (60 - 140) S	SW846 8260B
	SW846 8260B
Toluene 85 (60 - 130) S	SW846 8260B
·	SW846 8260B
Chlorobenzene 85 (60 - 130) S	SW846 8260B
88 (60 - 130) 3.1 (0-35) S	SW846 8260B
PERCENT RECOVERY	
Bromofluorobenzene RECOVERY LIMITS  80 (60 - 140)	
76 (60 - 140)	
1,2-Dichloroethane-d4 89 (60 - 140)	
89 (60 - 140)	
Toluene-d8 88 (60 - 140)	
89 (60 - 140)	
(00 110)	
NOTE(S):	

 $Calculations \ are \ performed \ before \ rounding \ to \ avoid \ round-off \ errors \ in \ calculated \ results.$